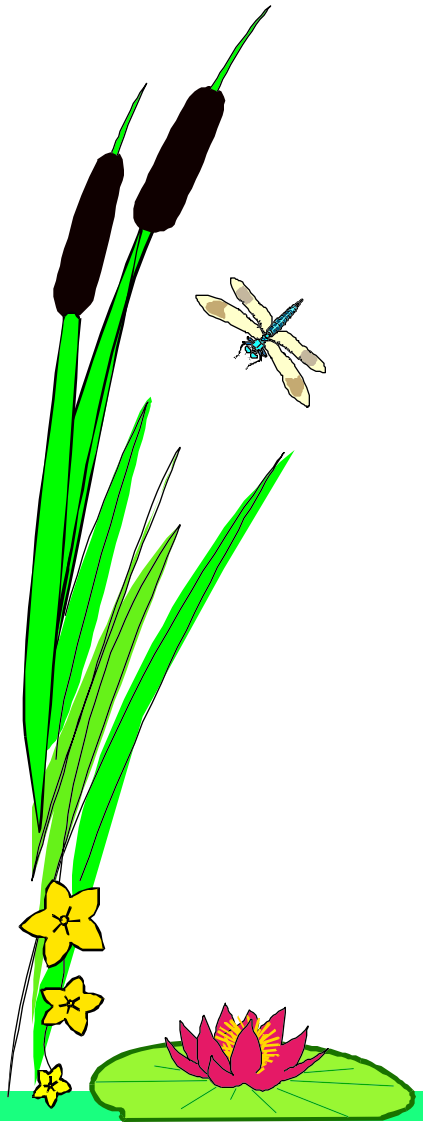
Appendix 1-1 Supporting Science, Laws, and Land Use Plans

(Comparable to UCRB Appendix A)



This Appendix contains the following items:

- *Introduction*
- *Science*
- *Laws*
- *Land Use Plans*

Introduction

There is a body of scientific literature especially relevant to the development of this Draft EIS. A number of major studies were conducted that either preceded or were done apart from the Interior Columbia Basin Ecosystem Management Project (ICBEMP) but were instrumental in laying the foundation for the Project. Another set of reports were developed during the course of the Project by the ICBEMP Science Integration Team (SIT) explicitly to support the planning effort. A list and description of these works follow. There are also a number of laws that apply to land management and decision-making on agency lands in the project area. A list of these is provided. Finally, land management plans have been developed for the Forest Service and BLM administrative units encompassed by the project area. These plans provide information important to development of this Draft EIS and may eventually be revised as a result of this planning effort. A list of those plans in the Eastside planning area is provided. For a list of plans in the Upper Columbia River Basin (UCRB) planning area, see Appendix A in the UCRB Draft EIS. For a complete list of literature cited in this Draft EIS, please refer to the References List following Chapter 5 of this DEIS.

Science

Major Studies of Eastside Ecosystems and Management

- ***Spring 1993.*** Richard Everett, Paul Hessburg, Mark Jensen and Bernard Bormann completed an **Eastside Forest Ecosystem Health Assessment**, commissioned by the U.S. Congress, which documented changes in eastside ecosystems and proposed an initial process for developing landscape prescriptions for management. This report, published in 1994 (Everett et al. 1994), focused largely on forest ecosystem health in six river basins.
- ***September 1993.*** The Eastside Forests Scientific Society Panel released an executive summary of the congressionally commissioned **Interim Protection for Late-Successional Forests, Fisheries, and Watersheds for National Forests East of the Cascade Crest in Oregon and Washington**. The panel's mandate was to broadly review the status of all eastside forests and their associated resources. The complete report was published in 1994 (Henjum et al. 1994).
- ***November 1993.*** A scientific workshop, **Assessing Forest Ecosystem Health in the Inland West**, was convened in Sun Valley, Idaho to assess the current state of scientific knowledge about the health of forests in the Inland West. The goal was for 35 participating scientists and managers to produce a current, accurate, credible synthesis of information, from across disciplines, about forest ecosystem health. The full publication (Sampson and Adams 1994) contains an overview paper, five synthesis papers, and 16 individual scientific papers.
- ***December 1993.*** Jay O'Laughlin, Director of the Idaho Forest, Wildlife and Range Policy Analysis Group, and others published Report No. 11: **Forest Health Conditions in Idaho**. The report addresses how sustaining healthy forest ecosystems might proceed in Idaho.
- ***March 1994.*** An Environmental Assessment (EA) was issued for the **Implementation of Interim Strategies for Managing Anadromous Fish-producing Watersheds in Eastern Oregon and Washington, Idaho, and Portions of California**, commonly known as PACFISH (USDA Forest Service and USDI Bureau of Land Management 1994)**.** The EA calls for the Forest Service and the BLM to implement interim direction for habitat management to conserve Pacific salmon, steelhead, and sea-run cutthroat trout throughout their range in Oregon, Washington, Idaho, and California. The EA also said that this interim direction is to be

followed by longer-term management direction to address anadromous fish habitat conservation in these states. The decision record is expected to be signed early in 1995.

- ***May 1994.*** A draft environmental impact statement on **Rangeland Reform** was released, proposing changes in grazing regulations for all BLM- and Forest Service-administered lands. The provisions of this proposed rule are necessary to ensure proper administration of livestock grazing on public rangelands and bring about reform in rangeland management for the improvement, protection, and proper function of rangeland ecosystems. The Final EIS was issued in December 1994 (USDI Bureau of Land Management 1994b).
- ***October 1994.*** The **Western Forest Health Initiative** report was released (USDA Forest Service 1994). The team, established by Forest Service Chief Jack Ward Thomas, was chartered to identify Forest Service priority activities to restore western forested ecosystems health. The report identifies project priorities over the next 24 months for forest health, including reduction of catastrophic changes in key ecosystem structure, composition, and processes; restoration of critical ecosystem processes; and restoration of stressed sites.

Science Integration Team (SIT) Reports

Three major products were generated by the Science Integration Team: A Framework for Ecosystem Management; A Scientific Assessment of the Interior Columbia Basin and Portions of the Klamath and Great Basins (includes five staff area reports plus an integrated compilation); and an Evaluation of EIS Alternatives. A number of other reports, developed both by the SIT and by private contractors, contributed to these documents. The SIT was composed of federal employees from the Forest Service, BLM, Environmental Protection Agency (EPA), U.S. Geological Survey (USGS), and U.S. Bureau of Mines. It was organized into five teams, specializing in Landscape Ecology, Terrestrial Ecology, Aquatics, Economics, and Social Science. The SIT was supported by a staff of Geographic Information System (GIS) specialists.

Scientific Framework

The *Framework for Ecosystem Management in the Interior Columbia Basin and Portions of the Klamath and Great Basins* (Haynes et al. 1996) describes the principles and processes applicable for managing ecosystems in the project area at various geographic scales. The *Framework* also includes a discussion of how these principles and goals might be used to implement ecosystem management within a process of managing risks (with risks defined as activities or events that relate to the likelihood of not reaching desired goals). Focusing on lands administered by the Forest Service or BLM, the *Framework* provides broad concepts and analytical processes recommended for ecosystem analysis, planning, management, and monitoring. The EIS process was consistent with the principles in the *Framework*.

Scientific Assessment

The ICBEMP scientific assessment resulted in two major documents. *An Assessment of Ecosystem Components in the Interior Columbia Basin and Portions of the Klamath and Great Basins* (Quigley and Arbelbide 1996b) presents information gathered and brought forward as Staff Area Reports by five functional groups ~ Landscape Dynamics, Terrestrial Ecology , Aquatics, Social, and Economics ~ through an examination of historical and current conditions and trends. An *Integrated Scientific Assessment for Ecosystem Management in the Interior Columbia Basin and Portions of the Klamath and Great Basins* (Quigley et al. 1996a) integrates the information identified in the staff area reports, and uses integrity indices to examine the extent of ecological risk and departure from historical and potential vegetation conditions. It also discusses probable outcomes of management under various possible futures. Both documents together are referred to as the *Assessment* or *Scientific Assessment.*

The *Scientific Assessment* drew on information from all lands within the project area, not just Forest Service- or BLM-administered lands. Understanding ecosystem components, structures, processes, and functions that operate at multiple geographic and temporal extents and providing context for decisions required that all lands be included in the *Assessment*. Because of the broad level of data resolution used in the *Assessment* and the large geographic extent, it relied primarily on remote sensing or readily available information from third party sources. An effort was made to use as much as possible of the existing information concerning the past and present condition of the project area. To the extent feasible, the SIT relied on existing simulation models to project future conditions of the project area. Where existing models were not available, new models were constructed and simulations made to project future conditions or interpretations, and inferences were made from the information available and model results.

Evaluation of Alternatives

The *Evaluation of EIS Alternatives by the Science Integration Team* (Quigley et al. 1997) analyzes the effects of implementing each alternative management strategy. Outcomes of each alternative were evaluated relative to maintaining and/or restoring forest and rangeland health and productivity; and to maintaining economic, social, and cultural systems (including tribal trust responsibilities). The *Evaluation* provides an estimate of likely outcomes and cumulative effects from the alternatives across the entire project area.

Laws

The following statutes and executive orders (as amended) constitute the major legal guidance for planning and management of lands administered by BLM and Forest Service. This list is not all inclusive but does represent the primary legal guidance considered in preparation of this Draft EIS.

American Indian Religious Freedom Act of 1978	42 USC 1996
Animal Damage Control Act of 1931, as amended	7 USC 426-426b
Archaeological Resource Protection Act of 1979	16 USC 470aa
Bald Eagle Protection Act	16 USC 668
Clean Air Act	42 USC 7401
Comprehensive Environmental Response, Compensation and Liability Act of 1980	42 USC 9601
Endangered Species Act of 1973	16 USC 1531
Environmental Quality Improvement Act of 1970	42 USC 4371
Executive Order 11514, Protection and enhancement of Environmental Quality, 1970	
Executive Order 11644, Use of Off-Road Vehicles on the Public Lands, 1972	
Executive Order 11988, Floodplain Management, 1977	
Executive Order 11989, Off-Road Vehicles on Public Lands, 1977	
Executive Order 11990, Protection of Wetlands, 1977	
Federal Advisory Committee Act (FACA)	
Federal Land Policy and Management Act of 1976 (FLPMA)	43 USC 1701
Federal Water Pollution Control Act/Clean Water Act	33 USC 1251
Fish and Wildlife Coordination Act	16 USC 661
Forest and Rangeland Renewable Resources Planning Act of 1974, as amended	
Geothermal Energy Act of 1980	30 USC 1501
Geothermal Steam Act of 1970	30 USC 1001
Land and Water Conservation Fund Act of 1965	16 USC 4601-4
Materials Act of 1947	30 USC 801
Migratory Bird Conservation Act	16 USC 715
Migratory Bird Treaty Act	16 USC 703
Mineral Leasing Act of 1920 (Mineral Lands Leasing Act)	30 USC 181
Mining Act of 1872	30 USC 26
Mining and Minerals Policy Act of 1970	30 USC 21a
National Environmental Policy Act of 1969 (NEPA)	42 USC 4321
National Forest Management Act (NFMA)	
National Historic Preservation Act	16 USC 470
National Trail Systems Act	16 USC 1241
Recreation and Public Purposes Act	43 USC 869
Resource Conservation and Recovery Act of 1976	42 USC 6901
Safe Drinking Water Act	42 USC 300f
Soil and Water Resources Conservation Act of 1977	16 USC 2001
Surface Mining Control and Reclamation Act of 1977	30 USC 1201 et seq.
Taylor Grazing Act	43 USC 315
Wilderness Act of 1964	16 USC 1131
Wild and Scenic Rivers Act	16 USC 1271

Land Use Plans

Forest Service and BLM Land Use Plans

State/Region	BLM District or National Forest	Plan Name	Date Completed
BLM/Oregon and Washington	Prineville District	Two Rivers RMP	June 6, 1986
	Prineville District	Brothers/LaPine RMP	1989
	Lakeview District	Warner Lakes MFP	1982
	Lakeview District	Upper Klamath Basin RMP	December 1995
	Lakeview District	Klamath Falls RMP	May 22, 1995
	Lakeview District	High Desert MFP	1982
	Burns District	John Day RMP	August 28, 1985
	Burns District	Three Rivers RMP	1992
	Burns District	Andrews MFP	1982
	Vale District	Baker RMP	July 12, 1989
	Vale District	Northern Malheur MFP	1982
	Vale District	Southern Malheur MFP	1982
	Spokane District	Spokane RMP	December 1992
Forest Service/Pacific Northwest Region	Ochoco NF Crooked River National Grasslands	Ochoco Forest Plan	August 1, 1989
	Winema NF	Winema Forest Plan	September 19, 1990
	Mount Hood NF	Mount Hood Forest Plan	October 17, 1990
	Malheur NF	Malheur Forest Plan	May 25, 1990
	Deschutes NF	Deschutes Forest Plan	August 27, 1990
	Deschutes NF	Newberry NVM Plan	August 1, 1994
	Fremont NF	Fremont Forest Plan	May 12, 1989
	Wallowa-Whitman	Wallowa-Whitman Forest Plan	April 23, 1990
	Wallowa-Whitman	Hell's Canyon NRA Plan	1984
	Columbia River Gorge NSA	Columbia River Gorge NSA Plan	February 1992
	Umatilla NF	Umatilla Forest Plan	June 11, 1990
	Okanogan NF	Okanogan Forest Plan	December 29, 1989
	Gifford Pinchot NF	Gifford Pinchot Forest Plan	June 1, 1990
	Colville NF	Colville Forest Plan	December 29, 1988
	Wenatchee NF	Wenatchee Forest Plan	March 2, 1990

Abbreviations used in this table:

MFP = Management Framework Plan
NF = National Forest
NVM = National Volcanic Monument
NRA = National Recreation Area
NSA = National Scenic Area
RMP = Resource Management Plan

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